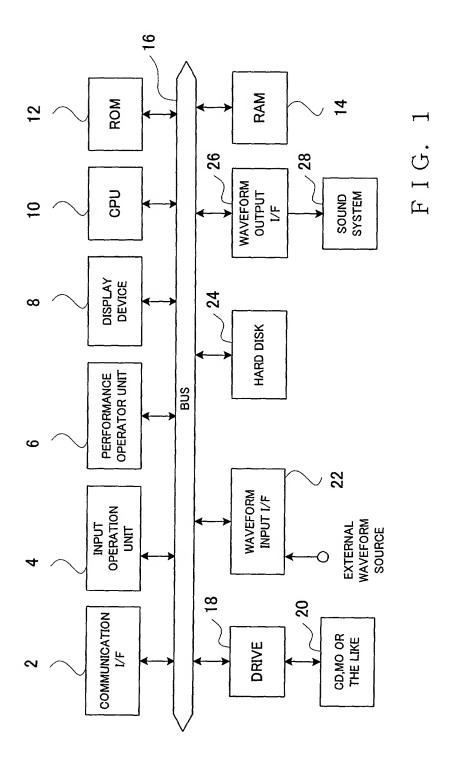
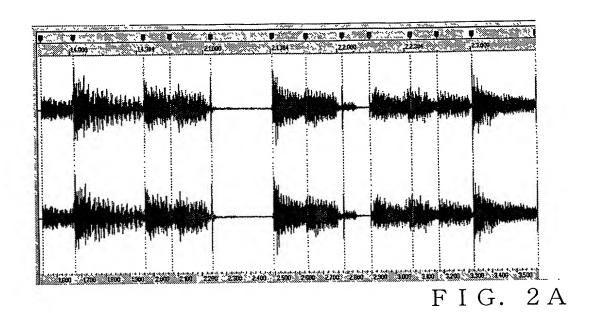
Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300



Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

2/19



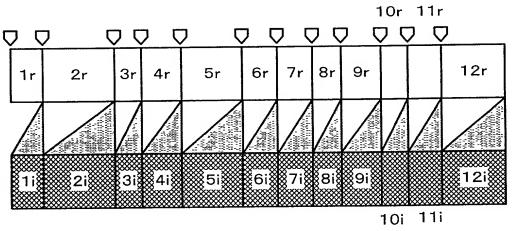
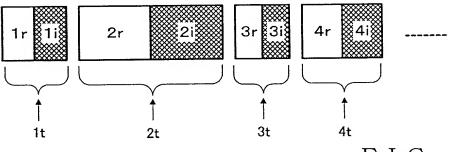
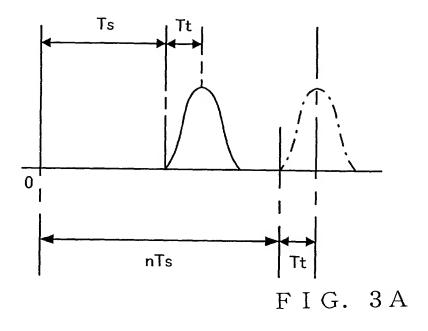


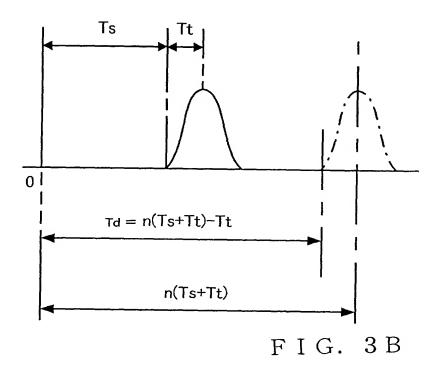
FIG. 2B



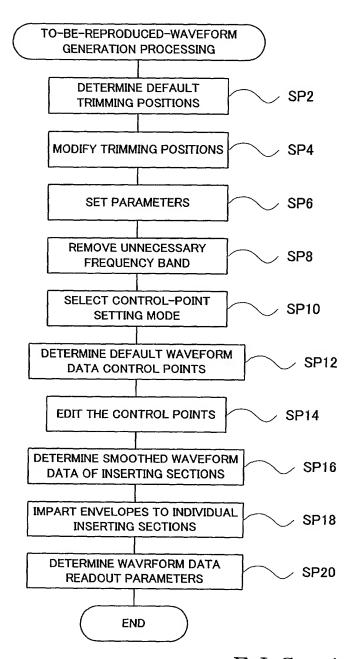
F I G. 2 C

Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300





Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

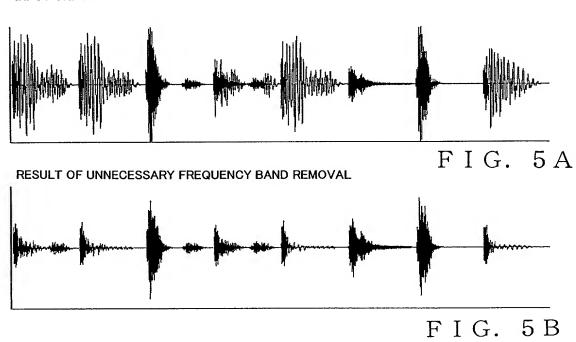


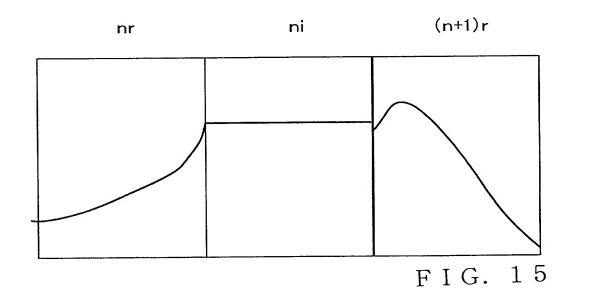
F I G. 4

Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

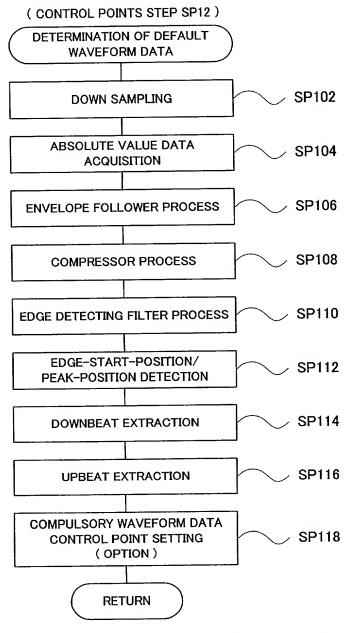
5/19

INPUT SIGNAL





Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300



F I G. 6

Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

7/19





F I G. 7 A

RESULT OF ENVELOPE FOLLOWER PROCESS

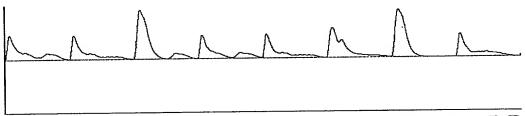
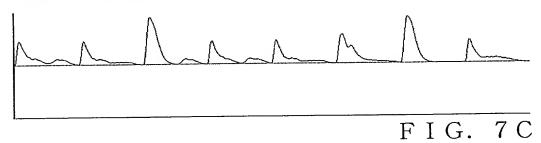


FIG. 7B

RESULT OF LOW-PASS FILTER PROCESS



RESULT OF COMPRESSOR PROCESS

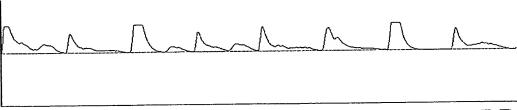
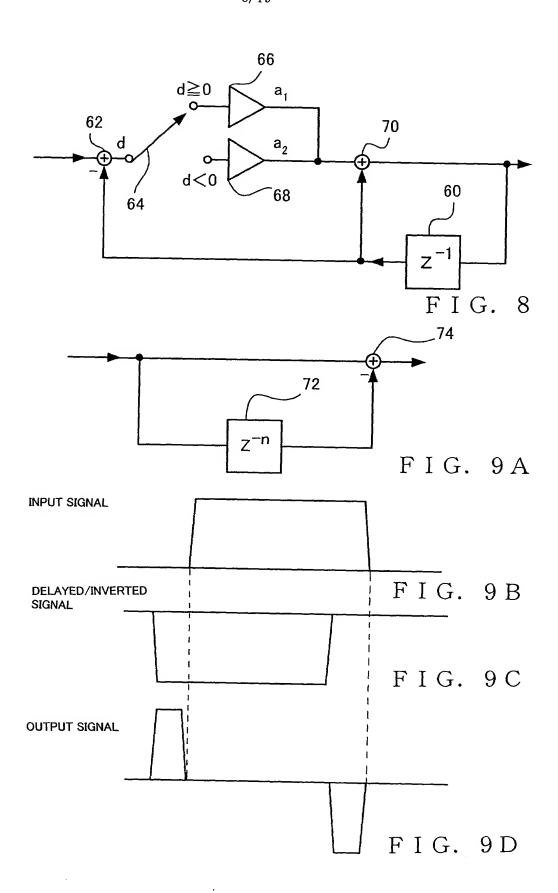


FIG. 7D

Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

8/19



Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

9/19

RESULT OF EDGE EXTRACTION

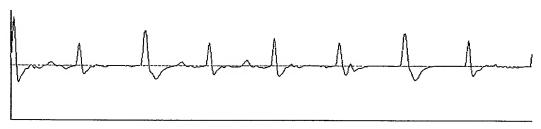
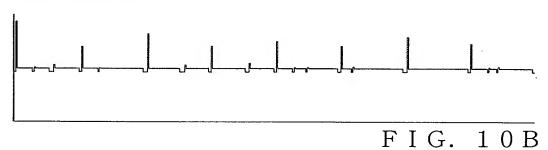
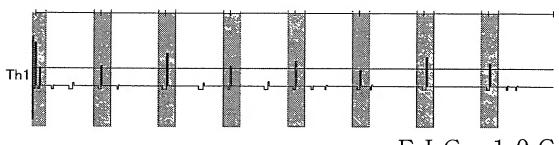


FIG. 10A

EDGE INFORMATION



DOWNBEAT DETECTING WINDOW

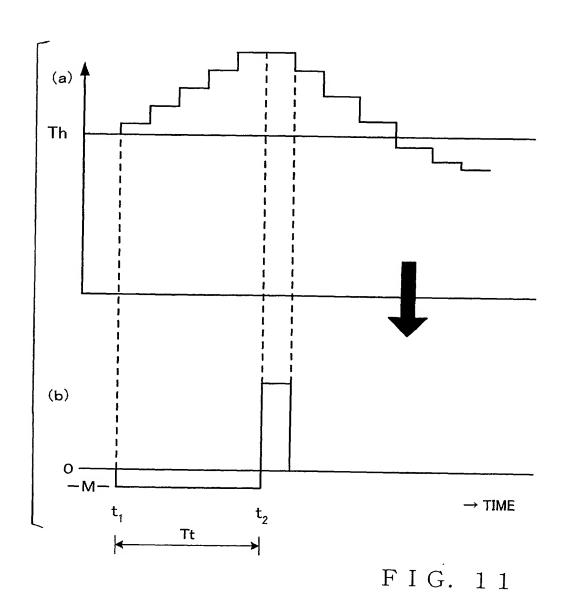


F I G. 10C

RESULT OF DOWNBEAT DETECTION



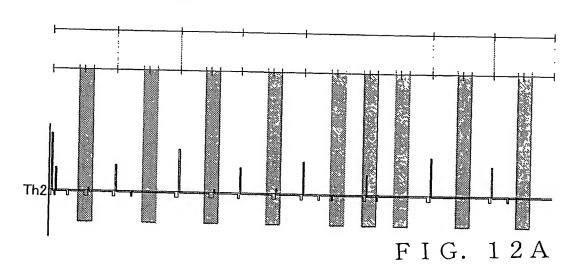
Title: Waveform Data Analysis Method and Apparatus... Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300



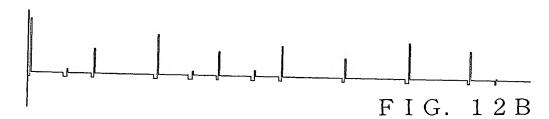
Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

11/19

UPBEAT DETECTING WINDOW



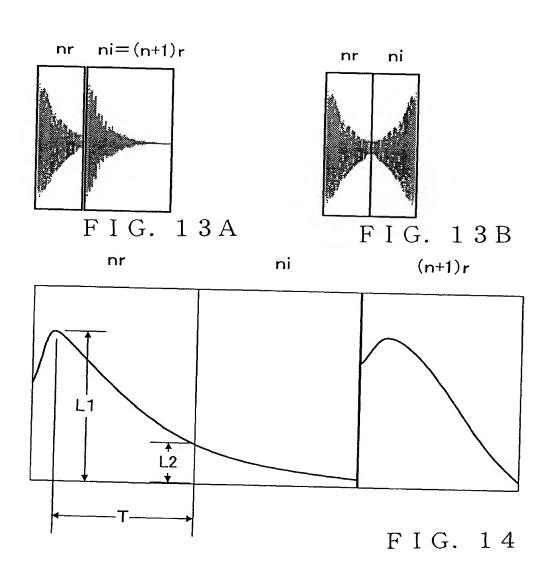
RESULT OF DOWNBEAT & UPBEAT DETECTION



EDGE INFORMATION EXCLUDED FROM DETECTING WINDOW







Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

WAVEFORM-DATA-GENERATION- START TRIGGERING CLOCK COUNT	WAVEFORM DATA	RISING TIME Tt
0	1t	0
28	2t	30
74	3t	40
<u> </u>	:	
349	11t	20
370	12t	10

FIG. 16

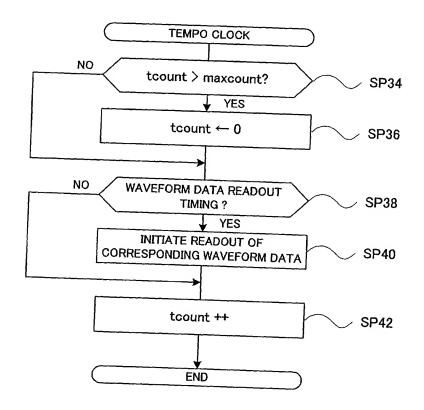
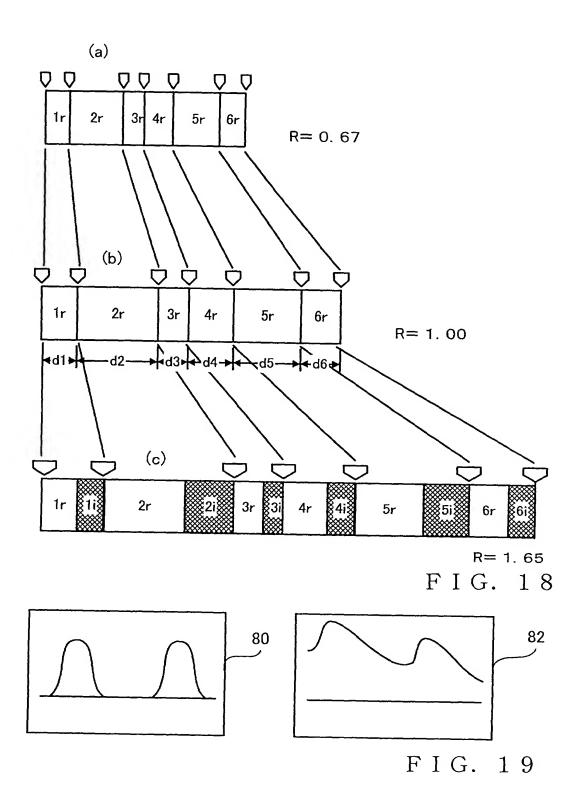


FIG. 17

Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

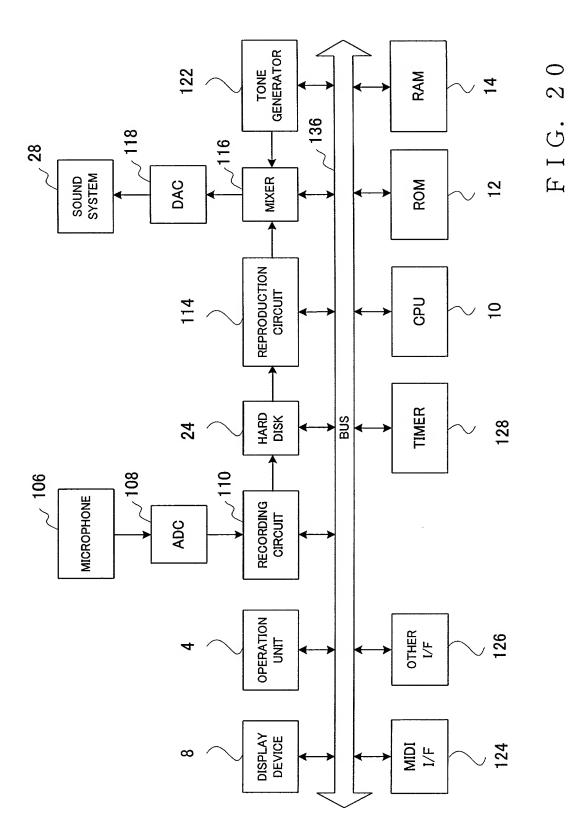
14/19



Title: Waveform Data Analysis Method and Apparatus... Inventor: Toru KITAYAMA et al.

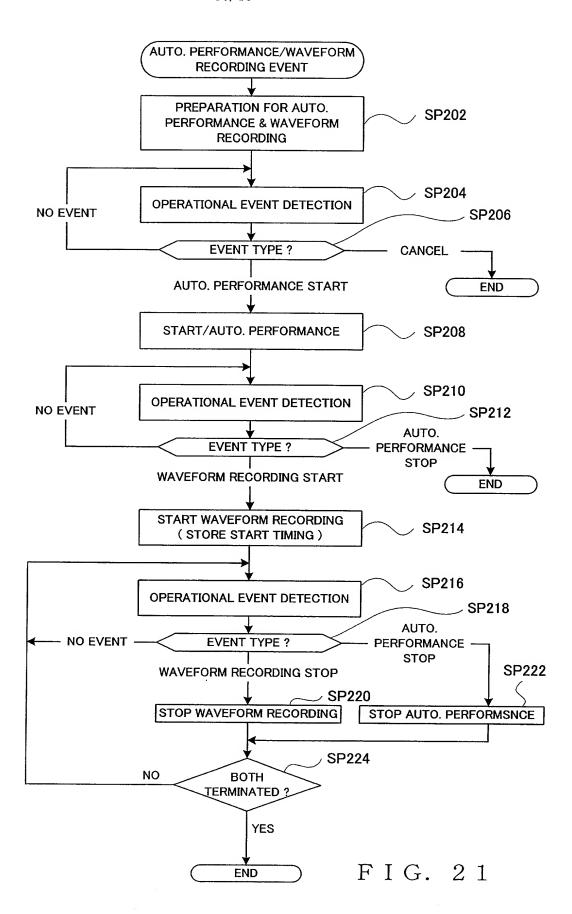
Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

15/19



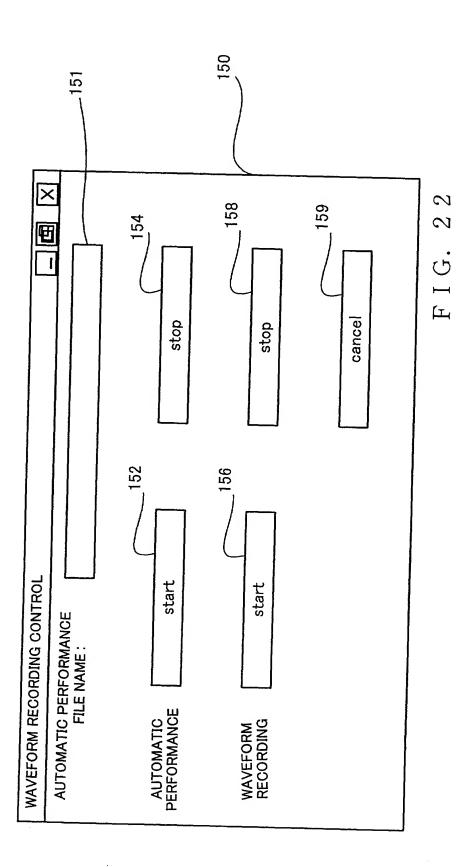
Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

16/19



Title: Waveform Data Analysis Method and Apparatus... Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

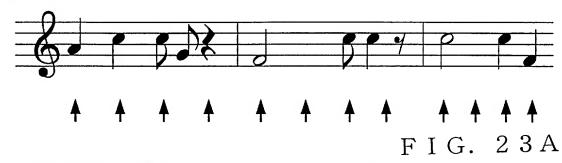
17/19



Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300

18/19





PHRASE WAVEFORM DATA

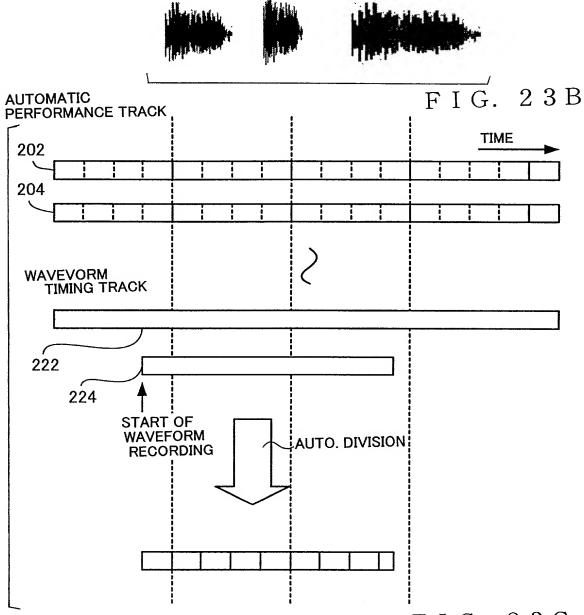
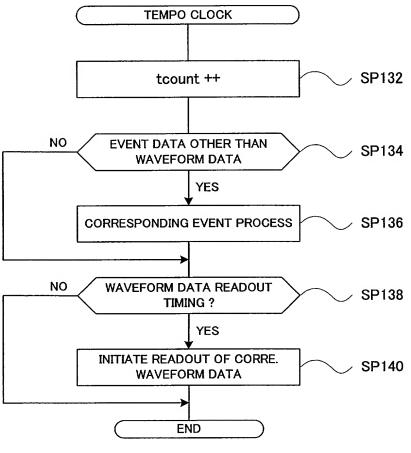


FIG. 23C

Inventor: Toru KITAYAMA et al. Application No.: Not yet assigned Docket No.: 393032030300



F I G. 24